

National Marine Fisheries Service (NMFS)
Application for a Permit for Scientific Purposes

A. Title: Application for Permit for Scientific Purposes under the Endangered Species Act of 1973.

Project Name: Stream Type Surveys on Washington Department of Natural Resources Lands.

B. Species: Puget Sound Chinook and Hood Canal summer-run chum salmon.

ESA Listed Hatcheries: Hamma Hamma Hatchery, Lilliwaup Cr. Hatchery, Union R. Hatchery, Big Beef Cr. Hatchery, Issaquah Hatchery, Icy Cr. Hatchery, Keta Cr. Hatchery, Loos Cr. Hatchery and the White R. Hatchery.

C. Date of Permit Application: July 24, 2006

D. Applicant Identity:

1. Alan Mainwaring, Wildlife Biologist
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E. Information on Personnel, Cooperators and Sponsors:

Training: Applicant and Field Supervisors have attended Backpack Electrofishing and Fish Handling Techniques (BIO-407) course put on by Northwest Environmental Training Center. This course has been audited by the NMFS and meets their training requirements for electrofishing field staff.

1. Field Supervisors

Mike Davies, Forester
Washington State Department of Natural Resources
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2. N/A
3. N/A
4. No contractors are anticipated.
5. The take activity will be to capture, handle and release any fish encountered. In the event of an unintentional killing of a listed species, the dead specimens will be returned to the capture site.
6. N/A

F. Project Description, Purpose and Significance:

1. The purpose of the research is to determine fish presence or absence in streams over 2 feet in width between ordinary high water marks with gradients less than 20 percent. Candidate streams are thought not to contain fish because of natural barriers downstream or lack of suitable habitat to support fish. If a stream formerly thought not to contain fish is determined to contain fish we will build stream crossings with appropriate fish passage structures and increase riparian buffers adjacent to harvest areas. In the absence of performing a protocol stream survey with electrofishing our policy dictates reliance on physical criteria alone. Many costly fish passage structures will be required without the narrow application of electrofishing, resulting in expending limited resources in areas of no benefit to fish.

2. N/A

3. The proposed project has broader significance as it is in essence a part of a statewide restoration plan for fish habitat and improved water quality. State law requires all large land owners of the State of Washington to have a Road Maintenance and Abandonment Plan (RMAP) which requires all active roads (roads used since 1974 for forest practice haul) to be upgraded to current standards or abandoned and all fish barriers replaced or removed (statewide) prior to December 2016.

4. N/A

5. By identifying fish bearing waters, the Washington Department of Natural Resources could potentially benefit listed species by removing existing man made fish barriers and/or replacing them with fish passable structures.

G. Project Methodology:

Project Description- Survey Protocol for Absence- The absence of fish use must be supported by stream survey information collected by using a backpack electroshocker to electrofish the stream segment in question. (Washington Forest Practices Board Manual, December 2002)

Survey Timing- Survey information collected to determine fish use or the maximum upstream extent of habitat utilization must be collected during the time window when the fish species in question are likely to be present. The spring period through early summer at which time fry are emerged from the gravels and distributing to rearing areas is the most appropriate time. In most cases, this period extends from March 1st to July 15th when water is most likely to be present in the channel. Due to the complexities in anticipating when fish

will be seasonally active, survey timing should be determined in consultation with WDFW and affected tribes prior to conducting a survey. (Washington Forest Practices Board Manual, December 2002)

1. Project Start Date- No sooner than May 1, annually (initial year of 2007).

Project End Date- No later than July 15, annually (initial year of 2007).

This project has no end date as there will not be a systematic survey of all streams. Other streams will remain un-surveyed until a forest management activity is scheduled in the vicinity.

2. Survey Effort- Survey data submitted must confirm that the survey effort included electro electroshocking a minimum of 12 of the reaches highest quality pools, three feet in surface area and one foot residual pool dept or larger. Documentation of stream characteristics is required where the minimum number of poles do not exist in the stream segment. The survey effort shall also cover at least ¼ mile of stream length unless the stream gradient increases and remains above the 20% gradient threshold and fish are not being found by the survey. (Washington Forest Practices Board Manual, December 2002)

a. Methods of capture and release; any fish encountered will be netted, identified and immediately released. In most cases the survey will terminate with the location of one fish.

b. The sampling schedule: Some time between the dates of May 1-July15. We will work closely with Washington Department of Fish and Wildlife (WDFW) and affected tribes to determine optimal survey timing for specific streams. The location of our survey area is within the central Puget Sound Basin with tributaries from the Olympic and Cascade Ranges. The majority of the streams surveyed are expected to be less than 5 feet in width. All streams exceeding 5 feet will receive a consultation with a WDFW area biologist and affected tribes prior to conducting a survey. The survey area is located in the following Counties: Mason, Kitsap, King, Pierce, Thurston and Lewis.

c. N/A

d. N/A

e. N/A

f. N/A

3. Possible Alternatives:

No survey alternative- Many costly fish passage structures will be required, resulting in expending limited resources in areas of no benefit to fish.

Visual methods- Walking the stream and attempting to locate fish with bait is attempted prior to scheduling electrofishing, however, the absence of fish use must be supported by stream survey information collected using a backpack electroshocker to electrofish the steam segment in question as per state law (WAC 222-16-031(3)).

4. Potential injury or mortality- Electroshock induced injury or mortality may occur with this activity through bruising, hemorrhage or fractures. Injury and mortality will be minimized by only surveying when necessary, calibrating equipment to conditions, minimize handling time and terminating survey as soon as objectives are met.

H. Description and Estimates of Take:

1. Describe the recent status and trends of each ESU/ species proposed to be taken: No new information to contribute.
2. Justification of potential mortalities: By identifying fish bearing waters, the Washington Department of Natural Resources could potentially benefit listed species by removing existing man made fish barriers and/or replacing them with fish passable structures. The number of listed species potentially killed by this proposed activity was determined based on past survey activities. Refer to section G.4. for an explanation of mortality rates.
3. Annual take estimates were used from the approved Scientific Research Permit (#1484) that covers the same electrofishing activity in the Pacific Cascade DNR region.
4. Include whether or not any USFWS listed species would be affected: Yes, the bull trout occurs within the range of this permit request area. The appropriate Threatened Species permit will be obtained prior to any survey efforts are initiated.

I. Transportation and Holding

1. Transportation of a Listed Species: N/A
2. Holding of a Listed Species: N/A
3. Emergency Contingencies: N/A

J. Cooperative Breeding Program: The Washington Department of Natural Resources is willing to participate in Cooperative Breeding Programs within our abilities where appropriate.

K. Previous or Concurrent Activities Involving Listed Species: N/A

L. Certification:

“I hereby certify that the foregoing information is complete, true correct to the best of my knowledge and belief. I understand this information is submitted for the purpose of obtaining a permit under the Endangered Species Act of 1973 (ESA) and regulations promulgated thereunder, and that any false statement may subject me to the criminal penalties of 18 U.S.C. 1001, or to penalties under the ESA.”

Signature_____

Date_____

Name and Position Title (print)_____

Species	Life Stages	Take Activity	Origin	#of Fish Authorized For Take	Authorized Unintentional Mortality	Research Location	Research Period
PS Chinook Salmon	Juvenile	Capture, Handle, Release	Naturally Produced	11	1/11	Washington State	January through December
PS Chinook Salmon	Juvenile	Capture, Handle, Release	Listed hatchery w/clipped adipose fin	11	1/11	Washington State	January through December
HC Summer-run Chum	Juvenile	Capture, Handle, Release	Naturally Produced	11	1/11	Washington State	January through December
HC Summer-run Chum	Juvenile	Capture, Handle, Release	Listed hatchery w/clipped adipose fin	11	1/11	Washington State	January through December